ABSTRACT

The Vaastushastra concepts presented in the seminar are consistent with the perceptions of national sciences. Since the effects of application of certain Vaastushastra principles are well-documented, it is but natural to look for the causes in modern scientific concepts.

The main aim of the seminar is to evaluate Vaastushastra in terms of established scientific ideas, So that principles enunciated in Vaastushastra find wider application in all walks of life.

Various divisions of Vaastu-science are described which are dear to man. Land, building, eating and living pattern and sleep are the four sub divisions of Vaastu-science, of which land is uppermost. Other facets are also adorned by Vaastu. The report also dwells upon facets of Vaastushastra which was followed by our ancients seers.

In recent times, work on building construction is done by architects but architecture and Vaastu are not identical. Architecture is an importance science which is based on numbers and mathematics.

But Vaastushastra is much larger than the Architecture. It is a natural Science which is very vast, and immense.

Vaastushastra finds its importance in all kinds of buildings be it a home or office, factory or commercial block.

The seminar report lays stress on its importance in Residential Buildings. To know the actual meaning of Vaastushastra, the knowledge of directions is very necessary. The report lays major stress on the directions and the orientations of different components of a residential buildings, based on scientific concepts.

INTRODUCTION

With the increasing desires of man in modern times, the ancient culture and behaviour patterns are losing their importance. However with the attraction Vaastushastra is getting these days, it appears that man has come to know the importance of his ancient cultural values.

The importance of Vaastushastra has augmented in modern times. Vaastushastra deals with all aspects of construction of a house, and its edicts are accurate.

The complete wisdom of Vaastushastra is based on scientific facts. It takes in view harmony with nature. It considers Sunrays, gravitational force, magnetic power, geographical condition, the five elements, and directions besides all other natural phenomena that may have a bearing upon a house.

Vaastushastra equally plays a significant role in commercial places, be it a trading house, hotel, commercial complex, cinema hall, factory, etc.

In a residential building, the main purpose behind the application of principles of Vaastushastra is to evade destructive forces of nature and to blend constructive forces to enable inmates of a building lead a happy, peaceful and prosperous life. If some defects have crept in construction of a house, because of ignorance or otherwise, they may be rectified with due prudence with the help of its principles. These remedies would certainly make life better.

1. THE MEANING OF VAASTU

The word 'Vaastu' has been derived from the word 'Vastu' meaning house or plot on which the house has to be built. The science pertaining to Vaastu is called Vaastushastra.

Vaastushastra is not a modern science but its importance has been recognised since ancient times.

It is an ancient Indian science of architecture and buildings which helps in making a congenial setting or a place to live and work in a most scientific way taking advantage of the benefits bestowed by nature, its elements and energy fields for enhanced wealth, health, prosperity and happiness.

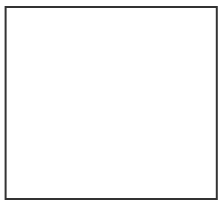
Be it home or office, factory or commercial block, Vaastushastra is known to reward the follower the benefits and protection from ill-effects in life be it economical, emotional or spiritual. Like any other Science, Vaastu is considered rational (based on cause and effect), practical normative (codified and governed beg principle), utilitarian and universal.

2. SHAPE OF THE PLOTS

Everyone needs a plot, big or small or of various shapes, according to ones requirements. Various kinds of plots for construction of a dwelling place are as follows :

1. *Rectangular Plots* : This kind of plot has equal longer sides and the length of both the sides of the width is less than these of longer sides. Rectangular shaped plot of length not greater than twice the breadth is considered good and is preferred. Sites of approximately rectangular shape(i.e. corners making $90^0 \pm 5^0$)are also favoured.

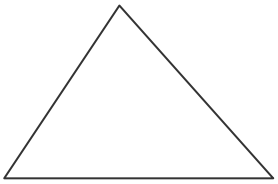
2. *Square Plots* : Square site is considered to be the best as it offers better flexibility .It has all the four sides equal and all the four angles right. A good house can be constructed on such a plot.



3. *Bar-Shaped Plot* : The plots with all the four right angles and the length being more the double the width are known as bar-shaped plots.

4. *Wheel-Shaped Plot* : A lot of land goes waste in the corners, therefore construction of a building on such plots should better be foresaken.

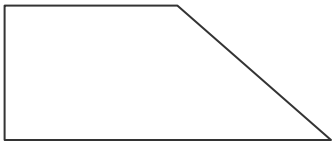
5. *Triangular Plot:* Generally , one side of such a plot is not conductive to the construction. This side may be used for latrine , external store , water tank , etc.



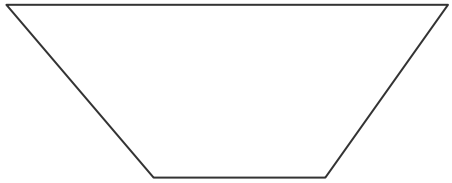
6. *Muller-Shaped Plot* : The muller shaped plots are of the shape of crescent on one side with long sides.

7. *Oblique Plot :*

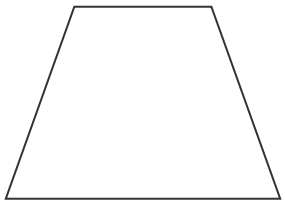
Residing in a plot with an oblique side neither begets peace of mind nor brings health.



8. *Lion – face shaped Plots :* Such plots are of the shape of the face of a lion. The width of these plots from the front is more and from the rear for less.

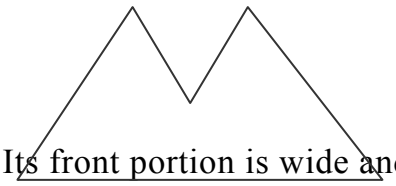


9. *Cow – faced Plot* : A plot of the shape of the face of a cow has less width from the front and more width from the rear.

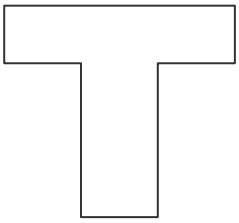


10. *Cart – shaped Plot :* A plot of the shape of a cart has a triangular side on one end, thereby it has the vices of a triangular plot.

11. *Bow – shaped Plot* : A plot of the shape of a bow has a long rear side with a sinking protuberance from the front.

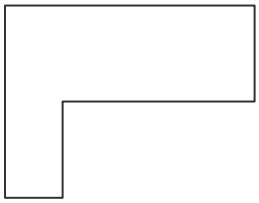


12. *T – Shaped Plot* : Its front portion is wide and the rear portion narrow.

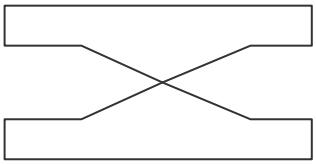


Various other miscellaneous shape of plots are :

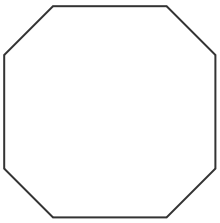
Crow –Beak Shaped Plot :



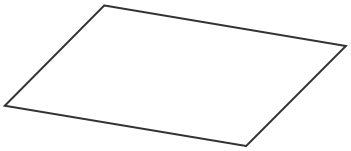
Double – Chariot – Shaped Plot :



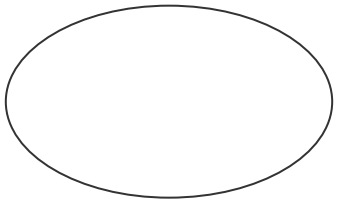
Octagonal Plot :



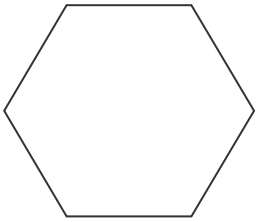
Quadrangular Plot :



Elliptical Plot :



Hexagonal Plot :



Odd shapes of sites like triangle, pentagon, hexagon, octagon and circle are not favoured for the simple reason that geometrics of building construction favour rectangular rooms with square corners.

Plots of odd shapes pose problems in construction and later in utility as triangular corner cannot accomodate boxes, cots and other articles of rectangular edges whereas a square corner readily harbours them without any difficulty.

3. DIRECTIONS

The starting of Vaastushastra is done from the place from where the building has to be constructed. First of all, we should have correct and full knowledge of all the eight directions of the plot, on which the construction is to be done. Until, we have correct knowledge of direction, we cannot have right idea about the nature of the plot.

East, West, North, South are the four main directions. The middle directions of these four directions are called co-sister directions. These are also four:

(1) Ishan – North East.

(2) Wayava – North West.

(3) Agneya – South East.

(4) Nairithya – South West.

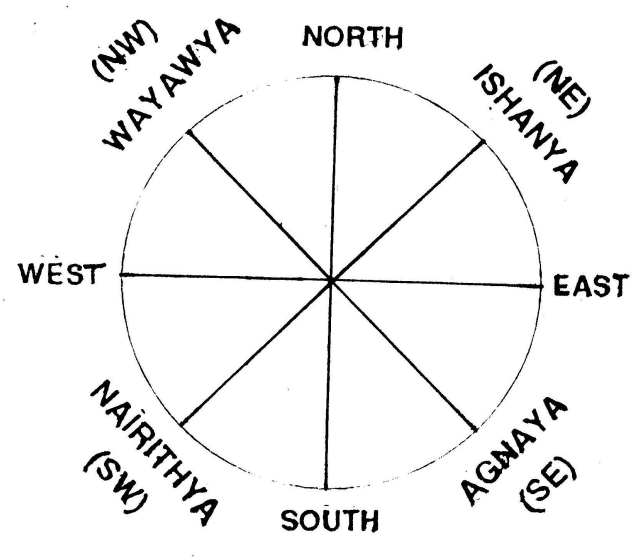


FIG. 1

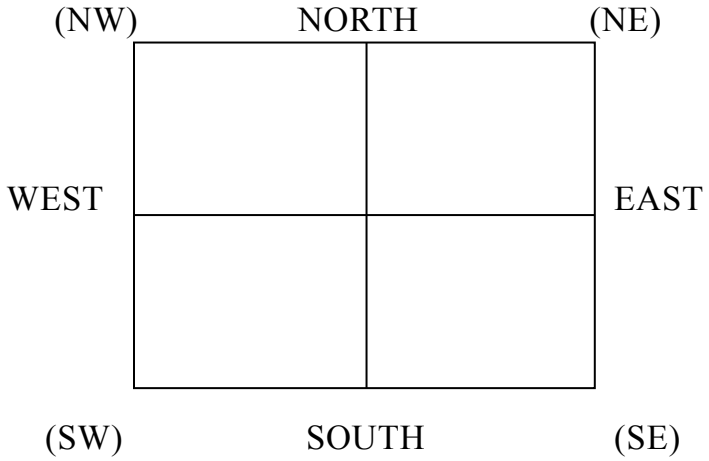
According to these four directions the plot can be divided into the four parts, as follows :

(1) North East – Ishan sector

(2) South East – Agneya sector

(3) South West – Nairithya sector

(4) North West – Wayava sector



After dividing the plot into four parts, we divide it into eight parts, according to the eight directions.

These eight directions are the life of Vaastushastra, because Vaastushastra makes the rooms, Verandah, bath rooms, according to the knowledge of these directions.

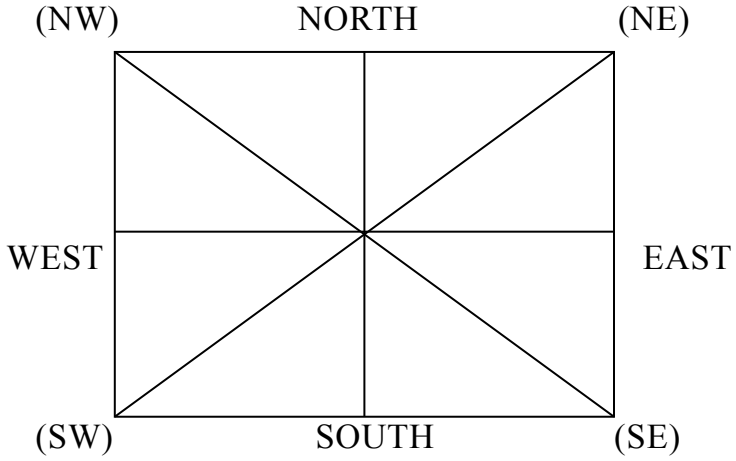


FIG. 3

(1) North sector.

(2) North-East sector.

(3) South sector.

(4) South-West sector

(5) East Sector

(6) South-East sector

(7) West sector

(8) North-West sector.

The axis about which the earth rotate is not vertical but slightly inclined (at 23 $1^0/2$) to the vertical. Hence the sun rises in the East, drifts slightly towards the vertical. Hence the sun rises in the East, drifts slightly towards the South before sets in the West (see fig. 4a). Because of it, East receives the morning sun. West receives the afternoon sun and South receives the sun throughout the day. North is least exposed to the sun whereas North-East gets the sun in the forenoon and North-West in the afternoon but of less intensity. Hence North-East, North and North-West remain cooler throughout the day.

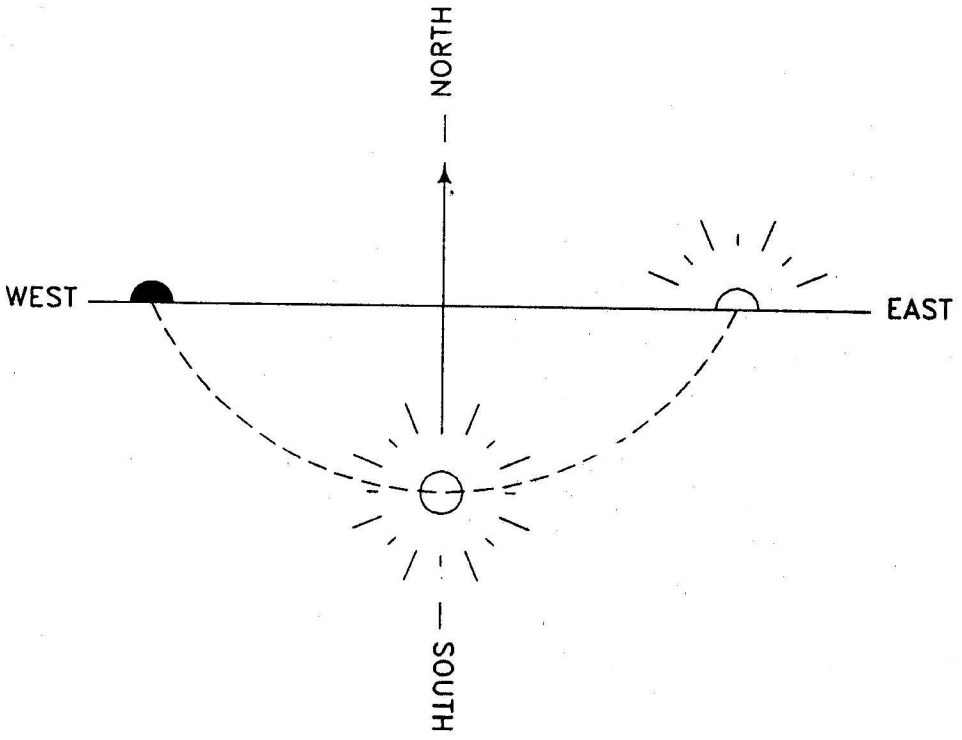
Hence, it was proposed that more open space should be left on North and East directions and less on South and West as the rooms on North and East may not get enough natural lighting if less open spaces are left. Also any extension on North and East directions was favoured and none on South and West. Even if a site was slightly of irregular shape, it was accepted when the diagonal towards North-East was longer than the other towards South-East (see fig. 4b)

Higher walls, elevated roofs or taller trees on North and East were not favoured. Shielding of North and East was prohibited mainly because of the same reason.

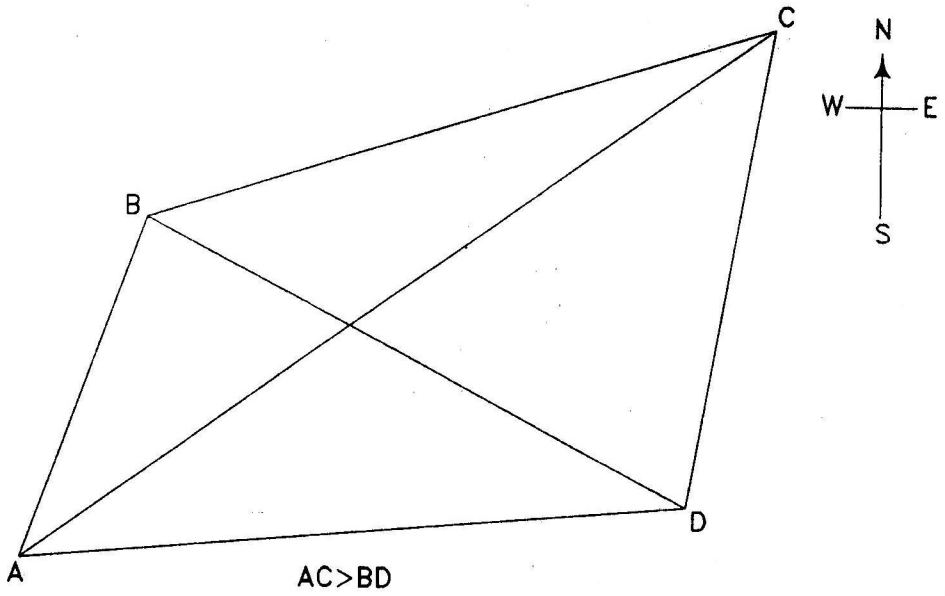
FIG. 4(a)

FIG. 4(b)

A Few Facts of the Vaastu



The sun path
FIG. 21-1



4. PRINCIPLES OF VAASTU

Planning of a building according to Vaastu pre-supposes certain principles.

1. Aspect.
2. Prospect.
3. Privacy
4. Furniture requirement.
5. Roominess.
6. Grouping.
7. Circulation.
8. Sanitation.
9. Flexibility.
10. Elegance.
11. Economy.
12. Practical considerations.

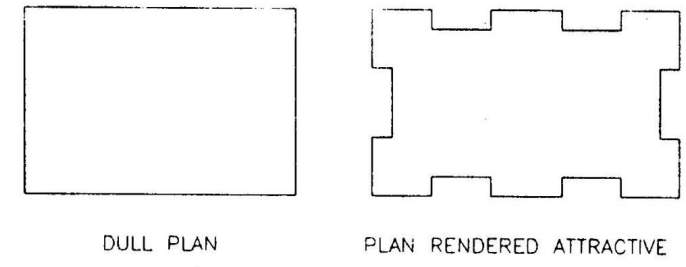
(1) Aspect :

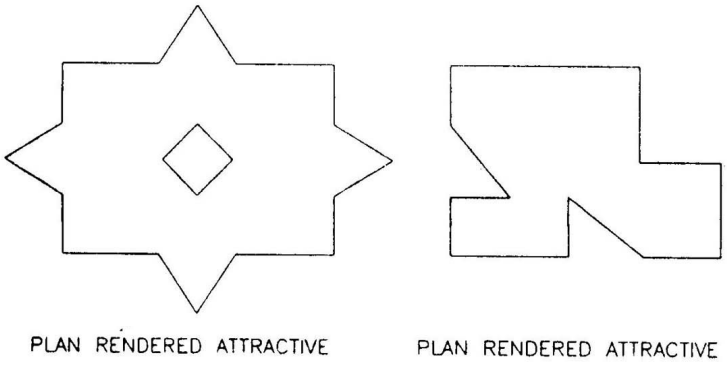
The arrangement of doors and windows in external walls of a building will allow the occupants to receive and enjoy nature's gifts as sunshine, breeze and scenic beauty of landscape. The manner of arrangement or peculiarity of arrangement of the doors and windows in the external walls of the building is termed as aspect. A room which receives light and air from a particular direction is said to have aspect of that direction.

Each room of a residential building should have a particular aspect because certain rooms need morning sun and other rooms need no light at all.

Aspects of different rooms of a residential building are shown below.

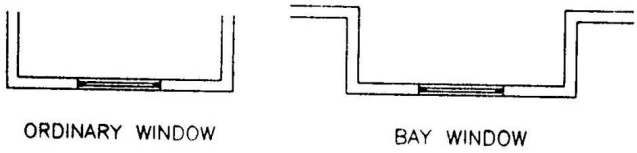
Room	Vaastu aspect	Influencing factor
Bed	NW – W – SW	To receive plentiful of breeze in summer.
Kitchen	E and rarely NE	To receive morning sun which is germicidal. It
Dining		be cool.
Drawing		ing winter and
Reading		sed and evenly
Store		





(2) Pros

n or end-view created better looking portions y undesirable ones.



r appearance attracti as comfort, cheerfu ust also prove a good

l by attractive plannin landscape or seascap

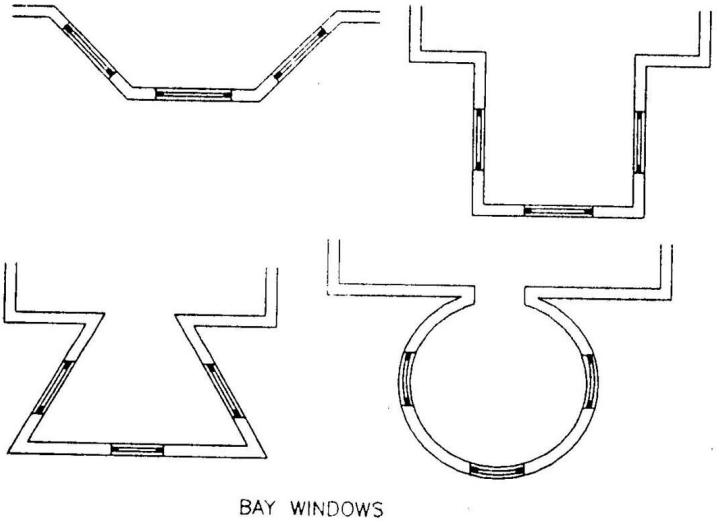


Fig. 5

(3) Privacy :

Privacy is the screening provided for the individuals from the others. It is different from seclusion. It is one of the important principle in the planning of buildings of all types in general and residential buildings in particular.

Privacy is broadly classified as

(a) Internal privacy

(b) External privacy

(a) *Internal privacy* :

Internal privacy is the privacy within the building. It can be easily achieved by

1. Proper grouping of rooms as bed, dressing and toilet, kitchen and dining.
2. Careful planning of entrance and circulation space.
3. Better disposition of doors and windows and mode of their hangings.

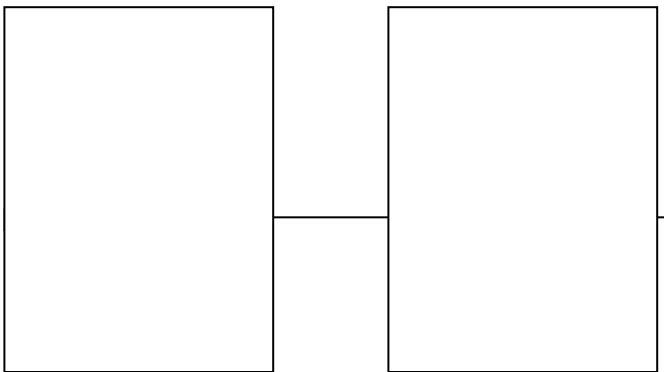
Locate the doors at one corner rather at the middle.

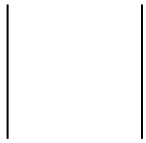
Doors with single shutter offer more privacy only when they are kept closed.

Doors with two shutters offer better privacy as one shutter can be closed leaving the other open.

Internal privacy can be obtained by proper grouping of rooms and careful planning of circulation space.

Internal or external partitions, screens, curtain walls, dwarf walls, ground glass window provide privacy (see fig.6). Curtain wall is the outer wall above lintel and below roof of a varandah. Dwarf wall is similar to parapet but provided above floor of verandah or passages.





Internal Partition External Partition

Fig. 6

Louvers for shutters, ventilators, fanlights and venetians provide ventilation and privacy.

Doors opening into the room offer better privacy than those opening outside.

(b) External privacy :

Privacy of the whole building with reference to the surrounding buildings and roads.

External privacy can be achieved by

1. Having a compound wall to a height of 1.35 m to 1.5 m.
2. Planting trees along the compound walls which acts as sound barriers and sight barrlers as well.
3. Providing ground glass windows and ventilators. Venetians had the advantage of offering privacy as well as air circulation. Ground glass venetians offer light as well.
4. Providing screen walls, curtain walls and dwarf wall on verandah.
5. Planting creepers along the boundary fencing or growing shrubs.

(4)Furniture requirement :

One of the most important requirements of a building planner, is to know how much space is needed by each function in a particular building. The room sizes for a particular function can be completed on the basis of permanent furniture to be used in that room as the furniture dimensions are standardized.

How much space is required for performing a particular activity is known through anthropometric science. Dimensions of furniture to be used in that room is also known. Hence, arranging furniture in that particular room keeping clearance for circulation, dimensions of furniture can be finalised. Hence while planning a building, furniture arrangement must be shown to justify the size of a room.

(5) Roominess :

It is the general feeling created after a room is well-furnished with all the permanent furniture (as the beds inside a bed room) as a spacious and well-planned, according to Vaastushastra.

A square room has no advantage and a rectangular room of the same floor area gives a better outlook.

A breadth-to-length ratio of 1:1.2 to 1:1.5 is desirable. When the length exceeds 2 times its breadth, it creates a tunnel-like effect i.e. a feeling as when one is inside a long tunnel.

Similarly height also plays an important role. A large room with less celling height will give very bad impression, and a small room with large celling height will produce an cavernous effect. Hence room should have all proportional dimensions.

(6) Grouping :

Grouping is the planning of two or more related rooms in proximity of each other. It minimises the circulation and at the same time improves the comfort, privacy and convenience of the inmates of the house.

The following points are to be considered while planning residential buildings.

1. Verandah adjacent to the drawing room has its own advantages. When the visitors are more in number they can be accommodated on the verandah. The furniture from the drawing room should be disturbed through the minimum length. Strangers can be received on the verandah itself.
2. The dining room close to the kitchen permits an easy serving of dishes in the desirable state i.e. hot or cold. Further the odours and smoke of kitchen are kept off from other rooms, bed and drawing rooms in particular.
3. The bed room, toilet and dressing room may be grouped together for better privacy.
4. The bath room and water closet should be nearer to each other. This saves the length of the water supply pipe.
5. Kitchen should be nearer to the backyard and the doors and windows are so located that the housewife can have a free unobstructed sight of the children playing in the open space or in the drawing room.
6. Staircase should be centrally located and easily accessible from all the rooms.

(7) Circulation :

Circulation is the access into or out of a room. It is the internal movement inside a building and the area earmarked for it. It is the space used for getting comfortable communication from one room to another or from one floor to another.

Circulation inside a house should be simple, systematic and short.

The sequential operations like the movements from kitchen to dining and bed to toilet control the provisions for circulation.

Circulation area neither affect the privacy of a room nor interfere with the utility space. Circulation in a building is of two types :

(a) Horizontal circulation.

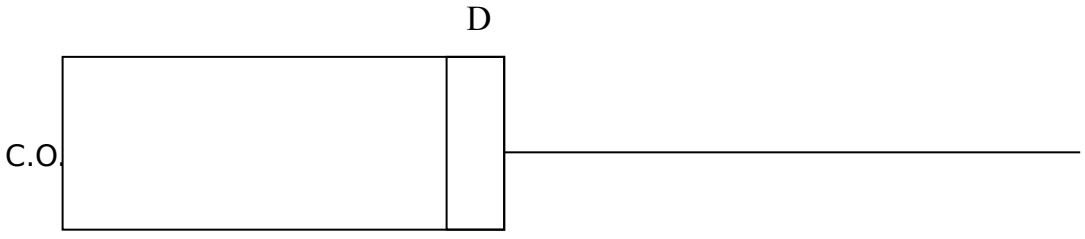
(b) Vertical circulation.

When the circulation is within the same floor, it is called Horizontal circulation and when it is between different floors it is called vertical circulation.

(a) Horizontal Circulation :

Area of the horizontal circulation may constitute about 20% to 25% of the total plan area of a residential building.

$$\text{i.e } \frac{\text{Circulation area}}{\text{utility area}} = \frac{1}{5} \text{ to } \frac{1}{4}$$



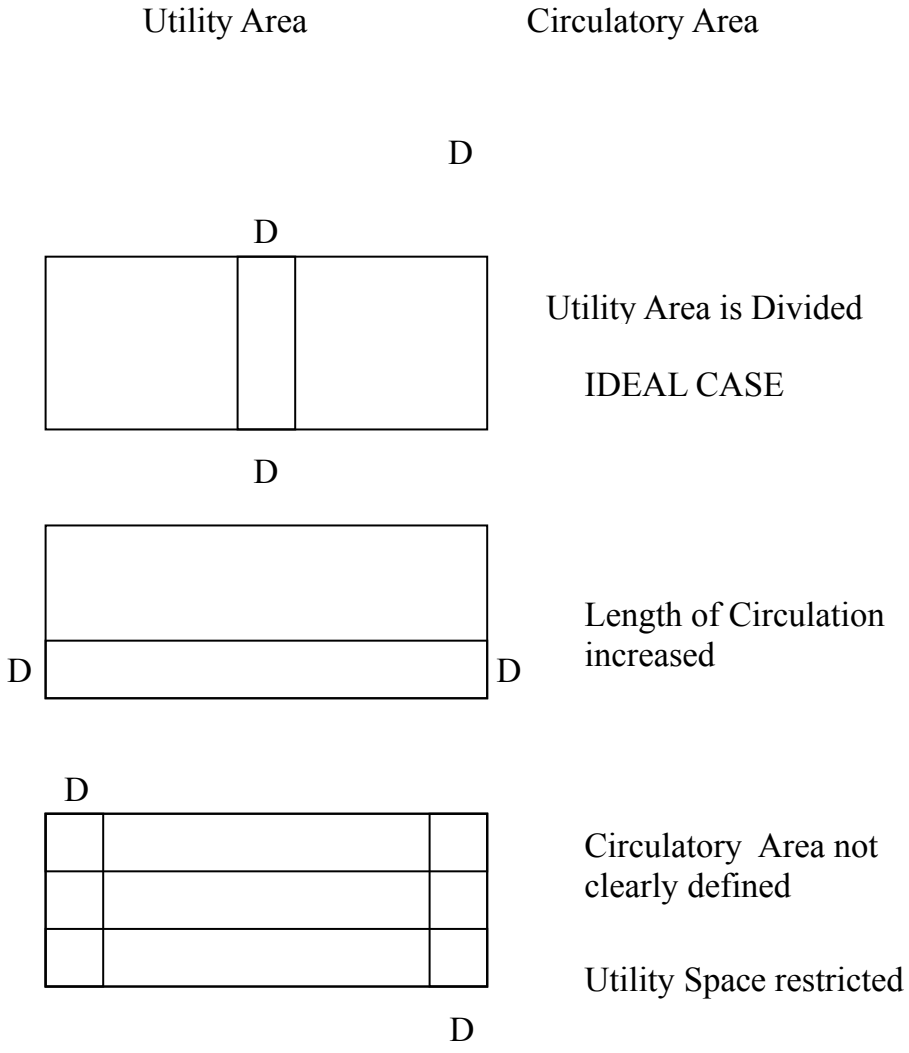


Fig. 7

(b)Vertical Circulation :

It is the movement from one floor to another in a multistoreyed building.

It is possible because of stairs, ramps (sloping slabs), elevators (lifts) and escalators (mobile stairs).

Stairs are to be well ventilated both day and night. They should have a free and independent access from all rooms.

(8) Sanitation :

It is the provision and upkeep of the various components of a house to keep the inmates cheerful and free from disease.

The factors influencing sanitation are

(a) Lighting

(b) Ventilation

(c) Cleanliness

(a) *Lighting :*

It can be natural light as that obtained from the sun during the day or artificial one as that from a filamentous bulb or fluorescent light.

Morning sun is pleasant and has vitamin D. It is the best tonic for rickets. Sun rays even if diffused kill pathogenic bacteria and keep the vision clear. Natural light stimulates the blood. This stimulation controls tuberculosis.

All the rooms of a residential house except store room need a reasonable amount of illumination both day and night.

(b) *Ventilation :*

Ventilation is the process of supplying cool and fresh air rich in oxygen and removing of the hot and breathed-out air containing carbon dioxide.

It is desirable to provide smaller windows well separated from each other than a bigger window of the same area on to the same wall.

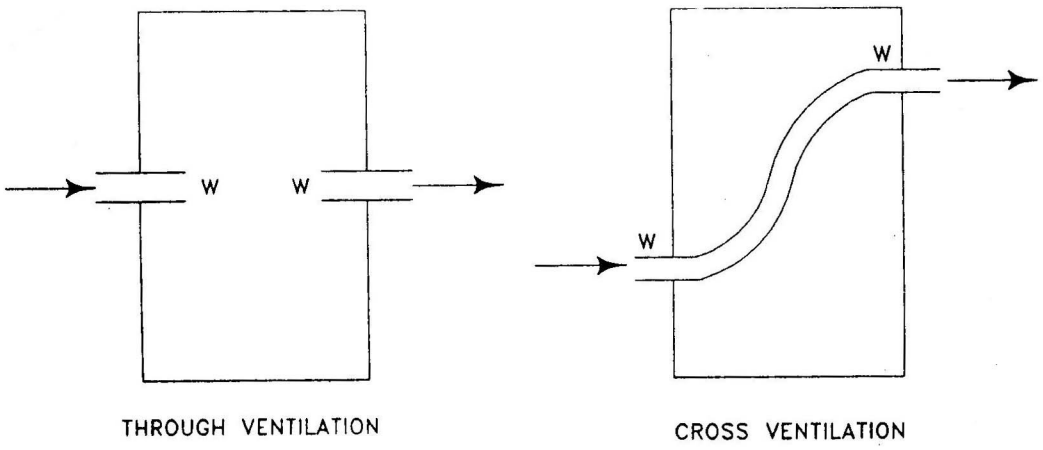


Fig. 8

(c) *Cleanliness :*

Dust harbours bacteria. Besides rendering the surface dull, it creates health problems. Hence the floor which receives most of the dust should be smooth, impervious, non-absorbing and uniformly sloping so that it collects less dust and is easily removed.

Sanitary conveniences such as bath and water closet should be so designed that the wastewater drains off as quickly as possible. Their flooring should be smooth, impervious, non-absorbent, non-slippery and given proper slope for the quick drainage.

(9) Flexibility :

Flexibility means that a room which is planned for one function can be used for other, if so required.

If the rooms are big enough (more than 15 sq m) and have a minimum width of 3 m, then they are more flexible and even the activities of various rooms can be exchanged.

A bigger drawing room, a number of rooms and verandahs, offer better flexibility.

(10) Elegance :

Elegance is the grand appearance of a building attained mainly owing to the elevation which in turn depends on the plan.

Selection of site for the building greatly affects the elegance. A building located in a depression will always give depressed elegance, whereas that located on an elevated spot gives impressive appearance.

(11) Economy :

The building should have minimum floor area with maximum utility. It will reduce cost and hence will be economical.

(12) Practical considerations :

The following practical points should be kept in mind in the planning of a residential building.

1. Strength and stability coupled with convenience and comfort of the occupants should be the first consideration in planning.
2. In the years to come, a man perhaps has to add a wing or extend some part of the house. Provision for this should be made in the planning in the first instance so that some part already built may not be required to be dismantled in future.
3. As far as possible, sizes of rooms should be kept large. Larger rooms can be shortened by providing movable partitions, but smaller rooms cannot be enlarged.
4. Use prefabricated elements for lintels, chajjas, steps etc. This measure is useful in effecting economy.

5. LAYOUT OF ROOMS :

Vaastushastra enumerates definite directions and places for various rooms to be constructed in a residential building. Principles of Vaastu are not adhered to as regards direction of a room while undertaking construction, the building may happen to be built contrary to the principles of Vaastu; which may bring the house owner to suffer from many troubles.

Orientation : (Utility and Importance) :

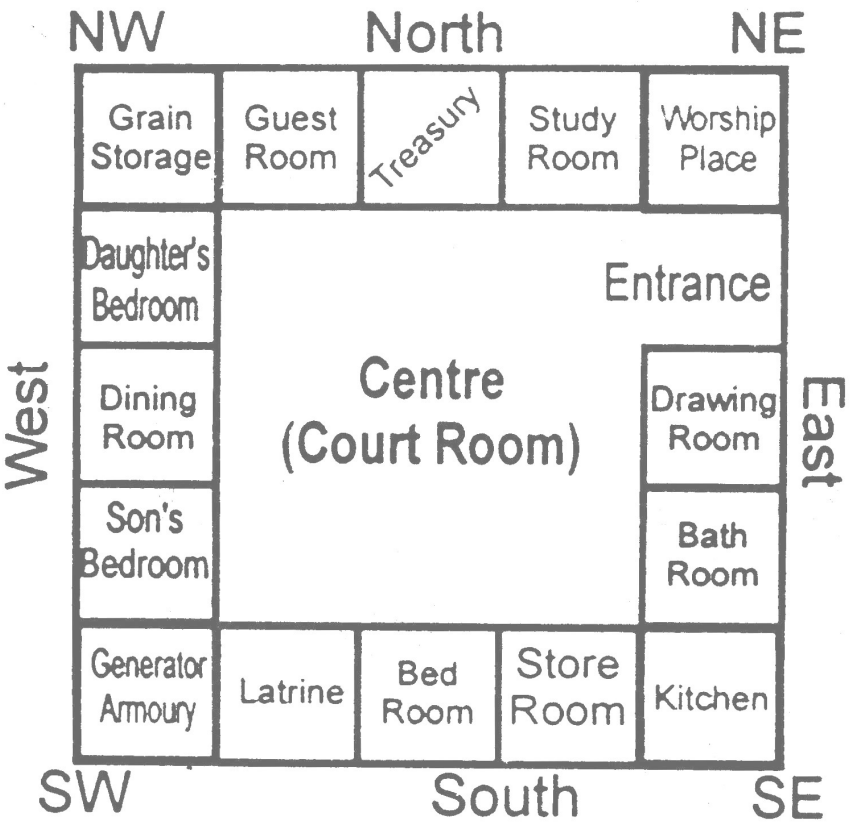


Fig. 9

As the North remains cooler, rooms of top priority and of higher importance were placed on North. Cow shed was planned on North-West. Paddy storage room next to it i.e. towards North-West, rooms of other valuable items next to it i.e. towards North and meditation or prayer room towards North-East (Ishan- the direction of the God). (see fig. 9).

East offers morning sun that is pleasant and welcome. Bath or the place of wash was proposed towards East. It may be because the main entrance was to be located on East and situated just by the side of bath, as it was the then custom to wash the limbs thoroughly before stepping into any room of the house.

Kitchen was proposed on the South-East direction (Agneya-the direction of Agni-the God of fire) as it provides enough light throughout the day. Cooking was done after the sun rise and before the sunset then.

The dining hall was well separated from the kitchen and was located in West direction. This may be because they used to consume food only during the day time and never after the sunset. Fire wood and cowdung cakes were used as fuel which produce a lot of smoke and hence dining hall was situated away from the kitchen.

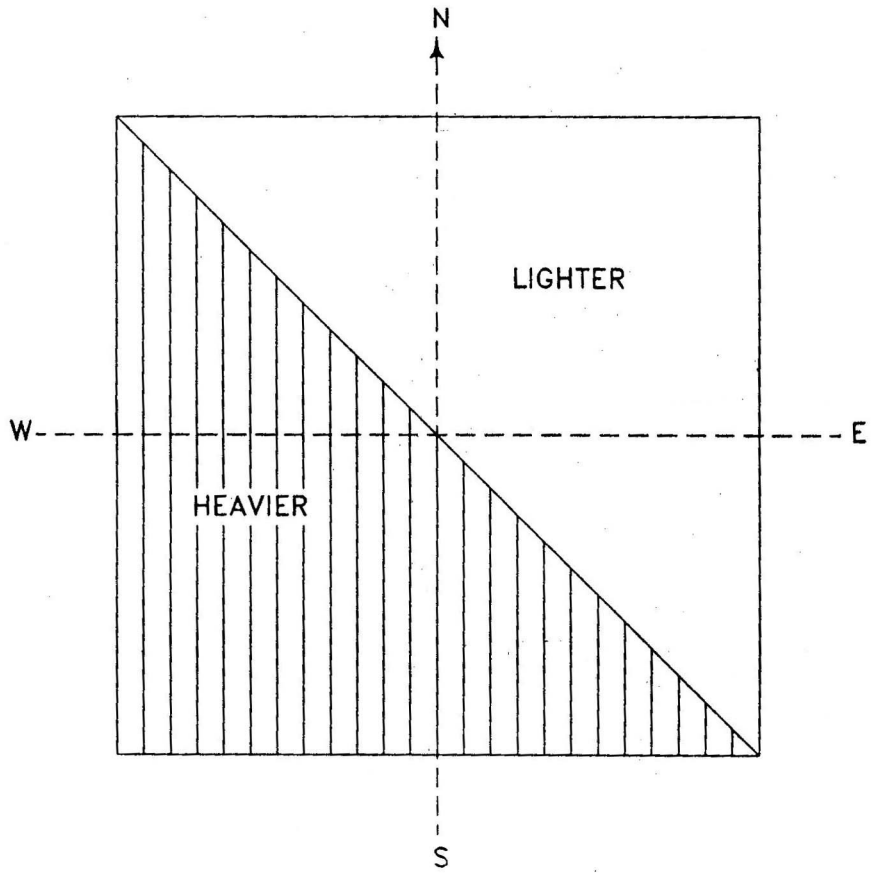
A man spends most of his time in the bed room. It must be airy and hygienic. South direction gets the sun throughout the day. A brighter bed room imparts good physical and mental health to its inmates.

South-West direction, i.e. the room adjacent to the bed room was allotted as a store room of the agricultural implement and other heavy objects.

Rooms on North and East were less loaded and those on South and West were more loaded (see fig. 10). This may be because of

cattle and paddy on North induce enough load to be further loaded.

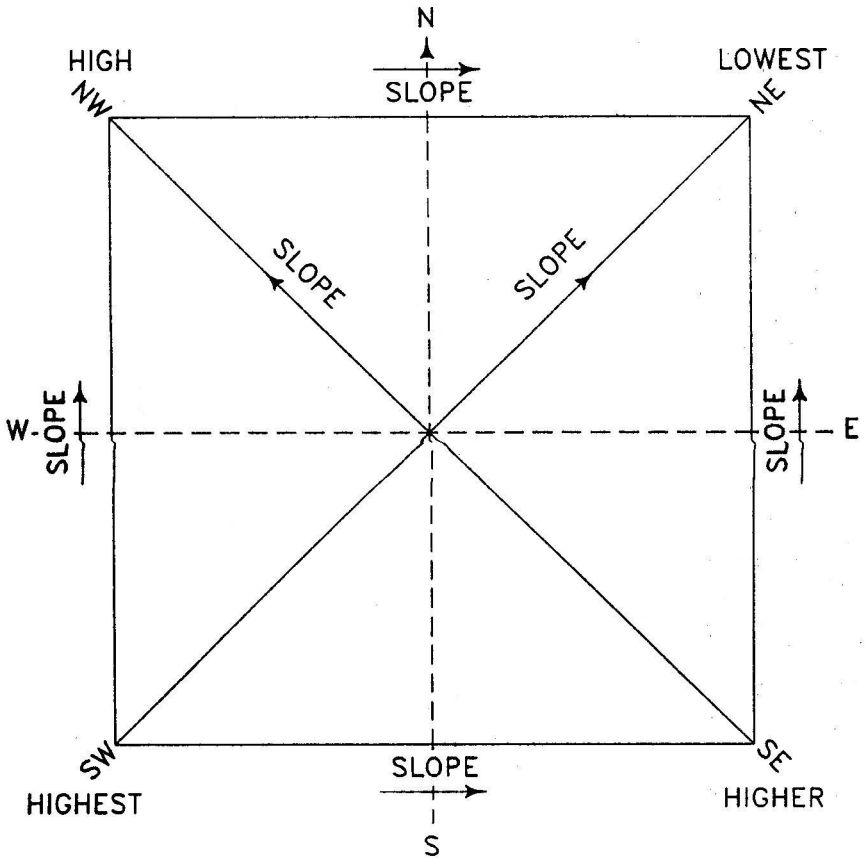
Fig. 10



Kitchen on South-East or bath on East cannot be loaded with unrelated items. The dining room towards South-West is the next room in the clockwise direction which is put to use i.e. for dining, for a limited period during the day and hence could take additional load.

Level differences :

Falling slope should be from South to North and from West to East. South-West corner should be the highest and North-East the lowest (see fig.11). The discharge from bath room should get drained towards North-East which may be used to raise flower beds or kitchen garden.



Relative levels in different directions according to vaastu

Fig. 11

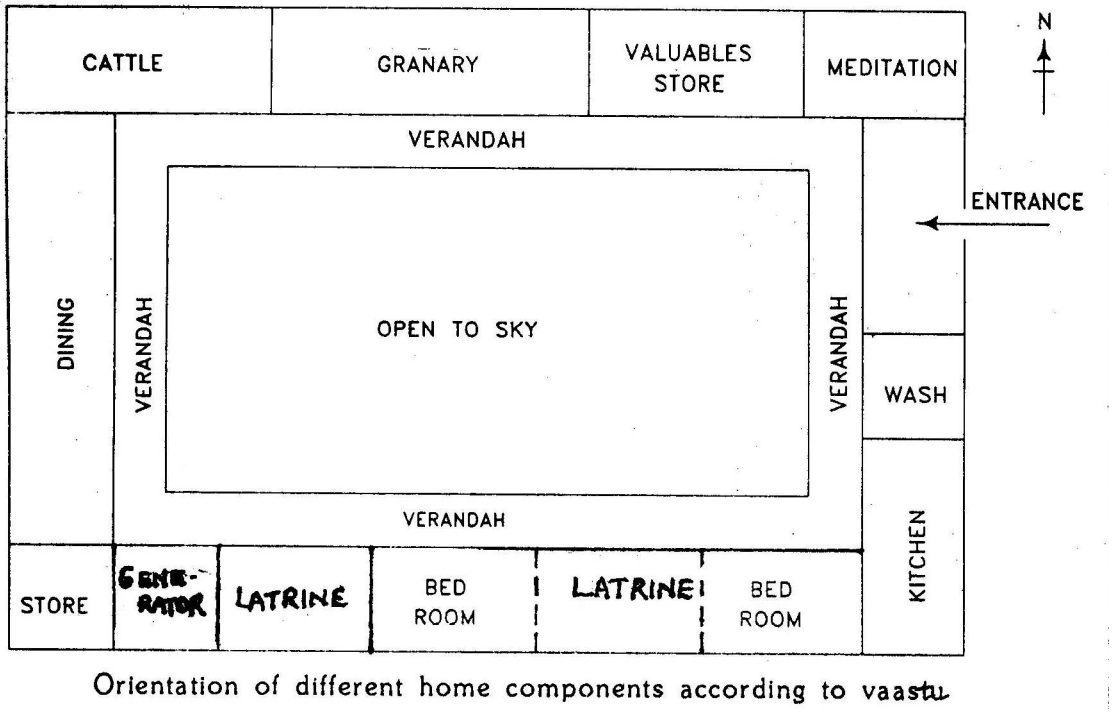
North-West was to be at a higher level than South-East, so that the kitchen discharges as canjee were to reach the cattle shed by gravity.

Main entrance :

East was preferred the most as the main entrance. North the next choice and West the third choice. South was avoided. This may be for the simple reason of providing greater privacy for the bed room situated towards South.

Another layout of rooms showing their alignments in respect of directions may be as follows :

Fig. 12



Orientation of different home components according to vaastu

Number of doors and windows :

The number of doors and windows should be even but not odd. A door should face another door or window of the same width. This is for better cross ventilation and also to provide symmetry which is a must for construction.

Well :

It is to be located towards North-East, North, North-East or East-North-East directions. This was with the intention that well must be nearer to the wash place (bath). Also water drawn from well could easily flow by gravity to the open space in North and East directions, i.e. away from the house posing no problem of drainage.

Colours :

Black colour was not favoured for doors, windows, and other members columns because it was considered inauspicious. Black absorbs light. Any amount of lighting cannot brighten a room coloured black. Also black is the most difficult colour to maintain.

6. PLANNING OF RESIDENTIAL BUILDING :

Prior to planning of residential building, it is essential to consider the following :

1. Size, shape and location of the plot.
2. Specific requirement of the occupants
3. Fund resources available
4. Locally available materials for construction
5. Meteorological status of the area.

Rooms meant for the various activities :

(1) Drawing or living room :

Drawing room is the very first room of a house as we enter. Sometimes, it may be followed after a verandah.

Requirements :

It should be comfortable and spacious room. It should get adequate natural light and breeze. It should be as nearer to the entrance of the building as possible. It should be well lighted and properly ventilated.

The number of doors in a drawing room should be few as possible. In on case the size of doors should be less than 2.0 m x 1.0m and that of window should be 1.2 m x 1.0m.

The number of windows in a drawing room, should be as many as possible. A minimum of two windows, one facing north and another towards east are desirable. Tall and narrow (sometimes may start from floor level itself) windows offer more illumination.

If it is to be used as a bed room (for guests) very frequently, the minimum floor area required is 23 sq. m to 28 sq.m.

2. Dining room:

A combined living – dining room is the latest trend as it increases the usable space of the room. It has the added advantages of eliminating formal dining suits by substituting a table and light, chairs and providing built- in storage of linen, crockery and silverware.

Requirements :

It should be cool.

It is to be connected to the kitchen.

A minimum floor area of 15 sq. m and a minimum width of 3 m is needed. The normal size of dining room is 4.0 x 3.0m, so as to accommodate dining space for six persons with proper and sufficient space for circulation round the table.

3. Kitchen:

A well planned kitchen is always efficient and attractive.

Requirements:

The atmosphere of kitchen should be pleasant and cheerful. S-E corner is the best location for the kitchen.Adequate lighting at both day and night is essential.For that a window towards north to provide light without heat and another towards east to receive the morning sun is needed.

A minimum floor area of 5 sq.m. is to be adopted.If it is kitchen-cum-dining, the floor area should be a minimum of 7.5 sq.m.

4. Bed Room:

A man spends 30% to 50% of his life in a bed room.

Requirements:

Bed room should get plenty of natural breeze and hence,should be located in the direction of the prevailing wind particularly in summer in tropics,i.e. in north-west or south-west.

Windows are so located to get maximum breeze any time.

The space for placement of beds should be kept such that cross air currents pass over the bed and when the door is open, the beds do not catch the sight of the outsider.

A minimum floor area of 10 sq.m. is to be provided.

Rectangular shape is preffered to square shape. 4m x 3m or 5m x 4m is generally adopted.Only one door to be provided and this does not take into account the door to toilet or to the dresssing room.

5. Bath and Water Closets:

Requirements:

Bath room should have a minimum breadth of 1.2 m and length of 1.5 m even though a minimum width of 1.5 m is desirable.

The floor area of combined bath abd water closet should not be less than 2.8 sq.m. with a minimum width of 1.2 m.The floor level of the bath id to be depressed by 50 mm compared to the floor level of the other rooms.

The floor is given slope in more than one direction, so that the used water will never get stagnated, but will run off quickly towards the gully trap.

A ventilator of 500 mm x 300 mm id to be provided at a height of 1.8 m above the floor level.

6. Verandah:

Any verandah protects the interior rooms from the sun. Verandah is the best place to receive strangers. It serves as a sit-out in the evenings and nights with members of the family or friends enjoying post-prandial talk in a flow of breeze. Occasionally, it serves as a sleeping area particularly in summer.

Requirements:

Its minimum width is 1.5 m.

Verandah on south and west protects the interior rooms from the sun.

Verandah on east diffuses the morning sun and hence may not be essential, whereas verandah on north serves no purpose.

The verandah roof is to be provided at a minimum height of 2.1 m above the floor level.

7. Store Room:

Requirements:

It is to be situated nearer the kitchen.

It should be dark, cool, damp proof and rodent proof.

When no separate store is provided, the loft above bath, w.c. and garage and the room below the stair landing may be used as a store. The minimum floor area of store room should be 8 sq.m.

8. Worship or Prayer Room or Pooja room:

We all perform pooja in houses. It is quite calm space to perform pooja to the GOD.Pooja can be performed in dining room or in kitchen room in case no separate pooja room is provided.

Requirements:

It should be located in N-E corner of building as per Vaastushastra rules as GOD will be facing west and devotee facing east.

A little bit of darkness is necessary to create concentration.

Lighting comes from north direction.

Sizes of hte room may be 2.1m x 2.1m , roughly 4 sq.m. in area.

9.Children Room or Nursery Room:

Requirements:

It should be nearer to kitchen for the mother to look after the children. This room should not be nearer to the bed room.

Children should get fresh air and frequent air exchanges and sufficient light.

The sill level of windows should be low and can be 300 mm above floor level with flowers, shrubs in front of it to give enthusiastic view to children. Good sceneries of art should be displayed around the room.

10. Study Room:

Requirements:

Study room area should be calm and free from noise.

Gentle breeze with frequent air exchanges is required for studying.

This room may be used as master's office room during day time and hence it should be given outside access.

North light is required for engineers and draftsmen.

Area of study room will be 10 to 12 sq.m.

11. Guest Room:

It is the place where the guests are accomodated. In these hard days when space is precious, the guest room may be used as a study room or recreation room or for other purposes when there are no guests.

Requirements:

A guest room should preferably be isolated from other bed rooms. It should have an independent access to common bath and w.c. if no attached toilet is provided. If there is no separate guest room, then drawing and rarely dining room can be used for this purpose .It should have good light, breeze and ventilation.

12. Sick Room or Comfort Room:

Sickness is inevitable at one stage or another. This room is needed especially when some aged or infirm dependent are in the house.

Requirements:

Its should be in ground floor to avoid the trouble of sick or aged person taking to stairs.

The room should get good breeze and light. Morning sunshine is essential, so S-E corner is appropriate for this room.

Dimensions are similar to bed room.

13.Office Room:

The basic function of an office room is to study. Therefore it is also called a reading room or library. This room is necessary

for proffesional work of Lawyers, Engineers, Doctors and Chartered Accountants and a host of many others.

Requirements:

The room should be located near front verandah in a quiet part of the house, preferably with diffused light and no glare.

14. Stairs:

Stairs should be provided for vertical circulation.

Requirements:

Stairs must be fire proof.

The minimum width of stair for a residential building is 900mm .

The minimum width of stair for a public building is 1000mm.

Rise : $\not>$ 190 mm for residential building.

$\not>$ 150 mm for public building.

Going: $\not<$ 250 mm for a residential building.

$\not<$ 300 mm for a public building.

Pitch of stair is 20^0 to 40^0.

Any flight should have a minimum of 3 steps and a maximum a 15 steps.

Width of landing should never be less than width of the stair. Rise of a stair should never be altered. Winders are to be avoided as far as possible. If they cannot be avoided, they should be provided at lower elevation.

15. Garage:

Provision of garages has become essential nowadays due to rapid increase in the number of vehicles.

Requirements:

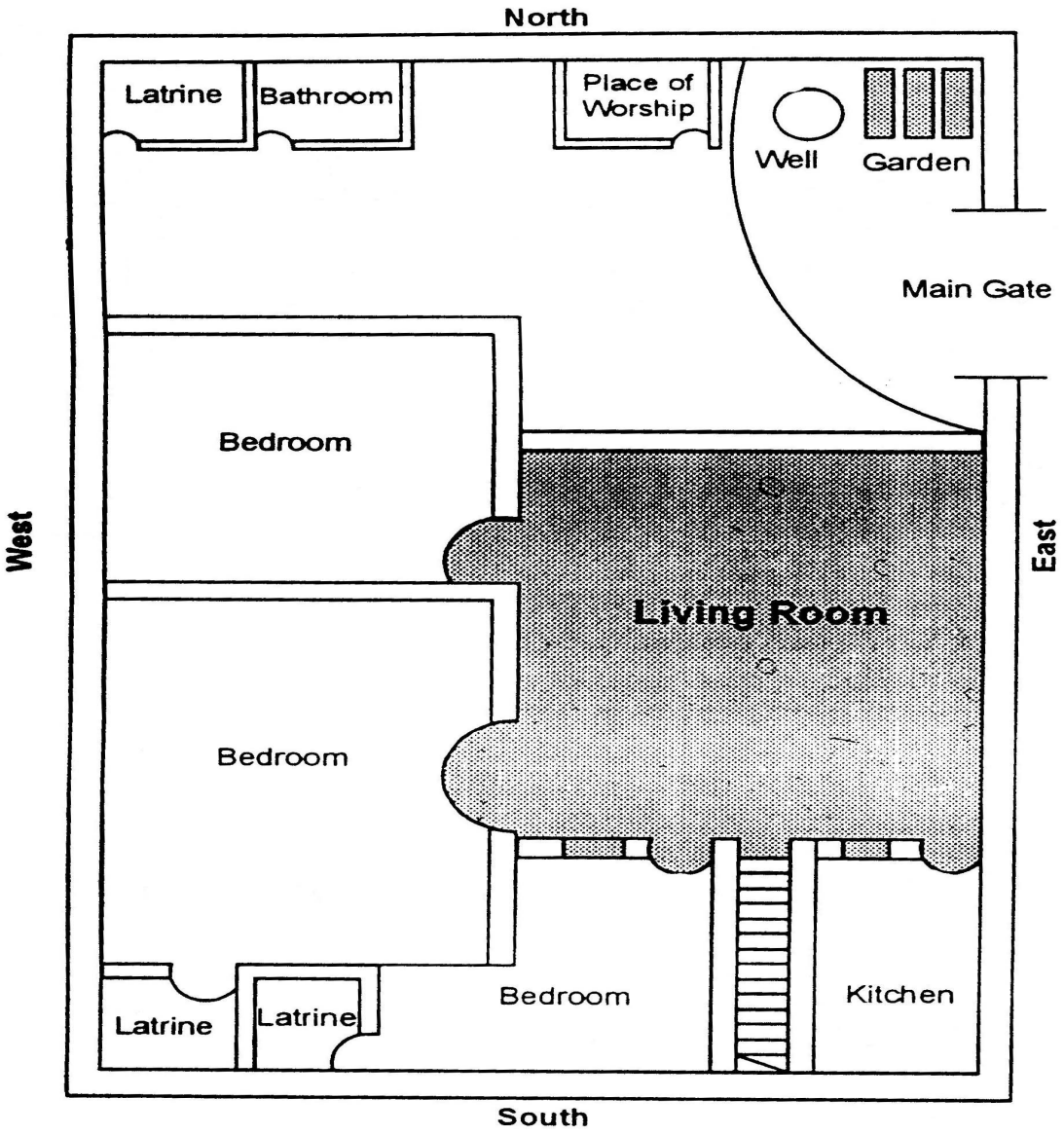
The dimensions of garage depends on the type of vehicle and number of vehicles to be kept. For scooters 1m x 1.5m space and 3 m x 6 m for cars may be sufficient.

A minimum of one window should be provided in the garage for lighting and ventilation.

Rolling shutters are preferable to folding shutters for garage doors.

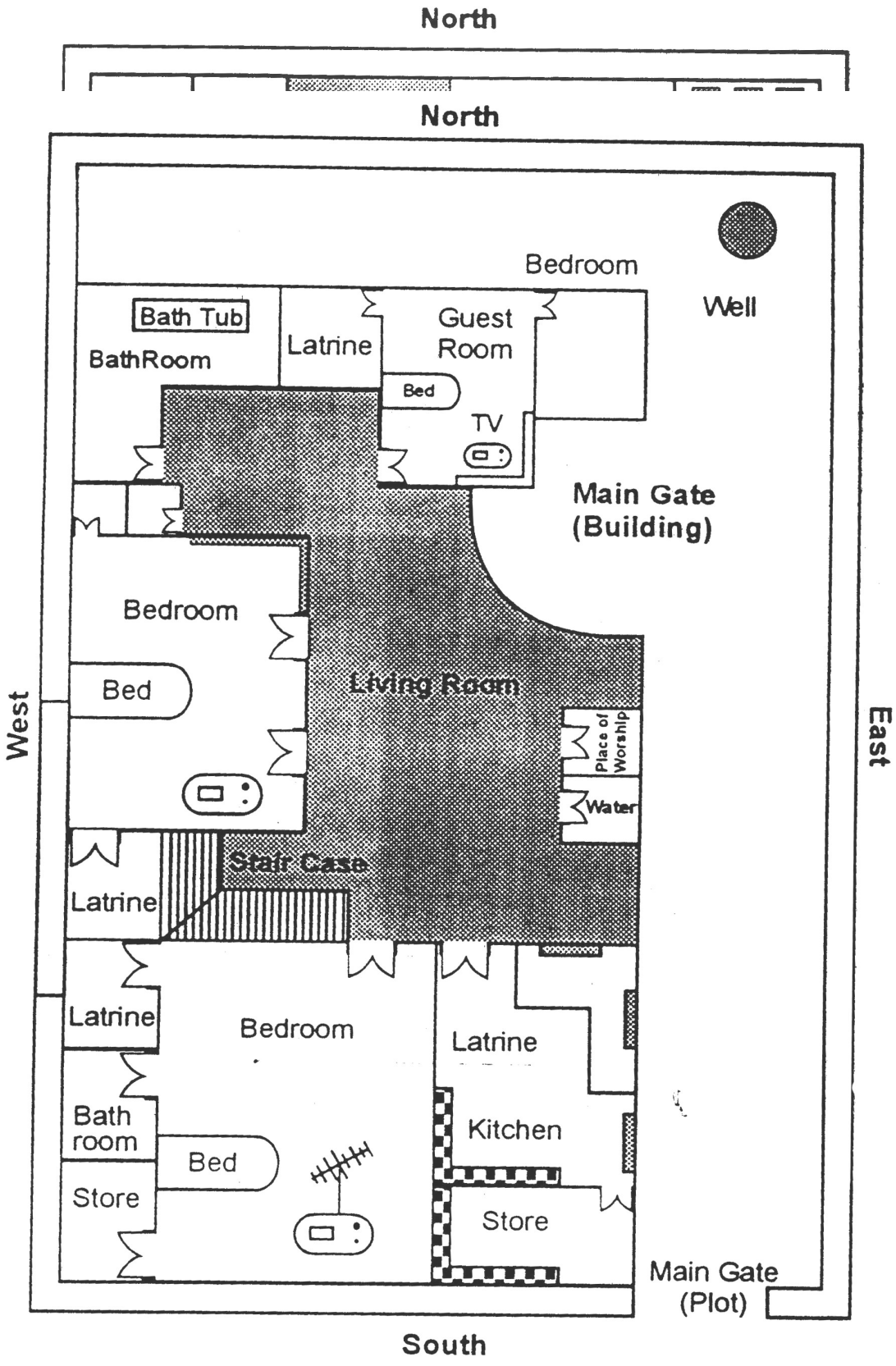
7. MODEL HOUSE PLANS

A few model house plans are being given below. Following these models while undertaken construction would bring happiness an prosperity of all kinds. These model plans are as follows :



1. Model of a East-Facing Building

Fig. 13



4. Model of a South-Facing Building

8. RELEVANCE OF VAASTU TODAY :

Many changes have resulted in the last few decades. The technique of construction has changed itself considerably. Multi-storeyed flats and row houses are fast replacing single or double storeyed detached or simplex, duplex, and triplex houses of yester years. Arches over openings were slowly replaced by lintels. Sunshade earlier unknown are a must in today`s construction.

Agricultural land is far away from residential localities.

Separate paddy storage godowns are provided disconnected from residential area. Meditation and prayer rooms disappeared. (May be a small Pooja room is provided in some houses.) Residential localities are getting congested and space is becoming scarce. People have compromised and got accustomed to asymmetric construction which was a taboo earlier.

Leaving open space between front and rear portions may not be possible as the house plans are compact. In addition to verandahs, drawing room is provided at the very entrance of the house which was unknown earlier. Kitchen and dining are grouped. Water closet- the place of excretion was incorporated in the building itself and is preferably grouped with bed room.

An opening is always a source of weakness. The number of doors are limited even or odd being irrelevant. Doors are preferred in one corner to the middle of the room.

Kitchen is preferred in the Eastern direction as it receives the morning sun and remains cooler in the afternoon.

Dinning room is grouped with kitchen and its aspect may be South-East, South or South-West so that it receives sun throughout the day and at the same time remains nearer to kitchen.

Bed room should be provided towards South-West, or North-West so that it always receives natural breeze. Windows in the direction of prevailing wind are to be provided particularly in the prevailing wind direction of summer. A verandah on South or West keeps the adjoining bed room cooler.

The drawing room is to be located along South-East, South-West or West so that it is nearer to the entrance and receives the sun most part of the day. The alignment of the road in front also dictates the orientation of the drawing room.

Study, store and guest rooms are proposed on North-West, North and North-East directions as they remain cooler and not exposed to the scorching sun.

Thus with change of time our habits are changed considerably. Sofas, chairs, dining tables, lavatory basins, gas stoves and other cooking gadgets are the fashion of the day. A well for a house is no more a must.

It may not be necessary to follow the same set up of rules in row and multi-storeyed buildings of the day which necessarily have plans which are mirror images of each other.

9. CONCLUSION

The inanimate world, the plant kingdom, the animal kingdom, and then the human being are but progressive states of evolution of the one and the same element. The culture inherited by us aims at a healthy life which is defined by coherent and harmonic interaction of all these states. On its part, Vaastushastra gives fruition to these ideas by using different entities like soil, stone, mortar, water, fire and direction to provide a harmonically balanced living environment for the human beings.

On the face of it, blind faith and metaphysics seem to govern the practice of Vaastushastra. Deep and serious thinking reveals that the logic and the reasoning of Vaastushastra is not only remarkable but its symbolism with stands the scrutiny of modern science.

The application of Vaastushastra can cover wider areas of life if efforts are made to understand its principles.

It is the matter of time before the mystic science of Vaastushastra is decoded and its all encompassing principles are found to reflect the insights of natural sciences.

So, last but not the least, if any building or structure is constructed pertaining to the principles of Vaastu, the people are sure to live a happy, peaceful and healthy life.

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